



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/561,694

06/22/2006

Thomas Korsell

39334

8241

116

7590

03/04/2009

PEARNE & GORDON LLP  
1801 EAST 9TH STREET  
SUITE 1200  
CLEVELAND, OH 44114-3108

EXAMINER

IP, SHIK LUEN PAUL

ART UNIT

PAPER NUMBER

2837

MAIL DATE

DELIVERY MODE

03/04/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/561,694

**Applicant(s)**

KORSSELL, THOMAS

**Examiner**

/PAUL IP/

**Art Unit**

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- \_\_\_\_\_ Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- \_\_\_\_\_ Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on 12/22/2005 complies with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nii et al (5,804,947) in view of Skrzypek et al (6,645,017)

The patent to Nii et al discloses a vehicle generator control system comprising a battery 14 connected to a generator 24. The battery is connected to an inverter 12 controlled by a controller 28. The controller detects the current 42 and battery voltage VB to control the inverter current and torque control of the motor 10. The current and

voltage of the generator/battery feedback are monitored to control the charging current and torque of the motor for a first operating mode and a second operating mode as recited in the claims. Whereas, the claims recite that the inverter and generator system is used for a vessel. However, the patent to Skrzypek et al discloses generator and inverter control system for marine vehicles. Since the "vehicle" of Nii et al is listed as hybrid electric vehicle, it is not limited to use only automobile, the "vehicle" could be used for vessel such as marine vehicle. In light of Skrzypek et al's marine power generator system needs to control the generator and inverter functions, it would have been obvious to one of ordinary skill in the art to modify Nii et al's system for vessel or marine vehicle as taught or suggested by Skrzypek et al.

***Response to Amendment***

5. Applicant's arguments filed 12/12/2008 have been fully considered but they are not persuasive.

Applicant argues that Nii does not teach that the inverter permits an output current to be "higher than said charging current in a first operating mode..." as required in claim 1. Applicant further argues that Nii does not teach that the inverter "limits said output current...in a second operating mode" as required in claim 1, and Nii does not teach that the invert "[maintains] the torque for said motor in a second operating mode" as required in claim 1.

Applicant's arguments are not persuasive. Applicant ignored the normal starting and running of conditions or modes of vehicles. Under the normal starting condition/mode, the generator generates output current higher than the charging current

of the battery in order to start the vehicle. The generator generates or maintains the output current to a limit output current when the vehicle is idling or under the normal cruise condition. The claims recite nothing more than the normal start and running/idling mode/condition of the vehicles such as a vessel or a vehicle. Nii discloses such start and running modes in terms of operating ranges according to the charging state of the battery under the vehicle operating condition. Nii discloses at column 5 lines 5 to column 9 line 62 the different stages of the operating modes as recited in the claims. Nii discloses the "higher than said charging current in a first operating mode" in column 6, 7, and 8 as the PgMax. Nii limits the generator output current in terms of PgMin in the second mode or stage of the generator operating mode as recited in the claims. It is known the generator operating in a second mode to maintain the motor torque of the motor during the cruise stage of the vehicle. Taking out the measured charging current from the generator, the measured voltage of the battery, the first mode or the starting mode of the generator, and the second mode or the running mode of the motor as taught or suggested by Nii, The Skrzypek reference shows the generator system of a vessel. However, the Skrzypek reference teaches the application of the generator system. Since Nii's recites the invention is being used for vehicles, it doesn't limit the vehicles for car application, the vehicle can be used for vessel the same as this application. There is no patentable subject matter recited in the claims.

Applicant's attention is directed to the publications/patents to Shimoyama et al (2007/0052243 or 7,459,801) and Weisz (2006/0160873 or 6,461,266 or 2002/0193197

or 6,726,588). These publications/patents clearly disclose a control circuit for measuring the charging current from the generator and the battery voltage to control the generator for different stages/modes/conditions of the vehicles. The claims are not patentable over these references. These references will be applied in a continued prosecution application (CPA) filed under 37 CFR 1.53(d).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Communication Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to /PAUL IP/ whose telephone number is (571)272-1941. The examiner can normally be reached on Monday to Friday from 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson, can be reached on (571)-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Internet correspondence **MUST** be provided with a prior written authorization by applicant in the application file record giving the Office authorization to communicate with applicant via e-mail. Without a written authorization by applicant in place, the USPTO will not respond via Internet e-mail to any Internet correspondence which contains information subject to the confidentiality requirement as set forth in 35 U.S.C. 122.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/PAUL IP/  
Primary Examiner  
Art Unit 2837

2/27/2009